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ABSTRACT

This study examined the relation between family variables and the mental health outcomes of adolescents. Family members' feelings about one another were assessed when the children were in grades 6 and 8. Family members' closeness to one another was assessed when children were in grades 8 and 12, and in a 4-year follow-up study. Adolescents' mental health outcomes were assessed by means of a questionnaire at grades 6, 8, and 12. Adolescents' depression was assessed at grades 8 and 12, and at the 4-year follow-up. Results indicated an increase in the number of reported adolescent depressive episodes through grade 12, with girls exhibiting a greater increase than boys. The reported closeness of girls to their parents declined through middle adolescence, but rose again by the 4-year follow-up. Boys reported more closeness with fathers than mothers. At grades 6 and 8, adolescents' mental health was related to closeness between children and parents. At grades 6, 8, and 12, negative family events, as reported by parents, were related to girls' depression. At grade 12, boys in the family type, hypothesized to be the least functional, reported surprisingly strong mental health. Twenty-seven figures comprising more than half the paper are included, and a list of 27 references is also provided. (BC)

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Familial Risk and Protective Factors Influencing Adolescent Mental Health

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Although the role of familial factors in adolescent mental illness has been controversial, most scholars have assumed that families play a role with milder problems and with healthy functioning. The present study is one of many now actively pursuing hypotheses linking family processes to mental health outcomes in adolescence. The primary focus of the broader study has been the developmental patterns for boys as compared to girls.

Because the primary focus of this research has been on mental health rather than mental illness, we have identified familial factors that permit examination on a continuum rather than only negative features (e.g., conflict). Thus, we have focused on the affective family environment as a major process construct. Interestingly, most of the studies that have examined the affective family environment--largely

retrospectively, are studies of clinical populations with psychopathology or behavior disorders (e.g., Burbach & Borduin, 1986; Goldstein, 1981). Studies comparing distressed and non-distressed adolescents consistently find differences in the affective family environment (cf. reviews by Burbach & Borduin, 1986 and Jacob, 1975; Wilen, 1986).

The affective relationship between parent and child is widely recognized as having a powerful influence on development in infancy and early childhood (Maccoby & Martin, 1983). Whether this factor continues to have an important effect in adolescence has been little investigated. Popular belief has placed priority on peer relationships as having greatest importance in adolescence. Nevertheless, accumulating research evidence suggests that parents continue to have important influence on the development of their children in adolescence (Baumrind, 1991; Cooper & Ayers-Lopez, 1985; Greenberg, Siegel & Leitch, 1983; Hill & Holmbeck, 1986). In particular, there is evidence that negative feelings between parents and their adolescent children are destructive to adolescent adjustment (Hauser, Vieyra, Jacobson, & Wertlieb, 1985). Similarly, negative feelings between husband and wife adversely affect the parent-adolescent relationship (Amato, 1986; Hetherington, 1981). Thus far, however, research has not focused on the effect of the affective environment in early adolescence.

As an intervening variable, we have also studied the effects of stressful family events on the relationships between parent and adolescent children as well as on adolescent mental health. Parental divorce has been of particular interest although we have also examined other changes in the family as well. Our prediction is that weak family relationships will become worse when stressed, with adverse effects on the mental health of adolescent children. We also hypothesized that girls would be affected more strongly than would boys. Further, we expected that adolescents with more psychological difficulties prior to stressful family events would have more negative outcomes following these events.

Methods

The data presented here are part of a larger study of the development of mental health over the adolescent decade. The design of the study is cohort sequential longitudinal (Baltes, 1968; Schaie, 1965). (Figure 1) Sixth graders (N=335) were sampled randomly from two successive cohorts of two middle to upper-middle class suburban school districts. (Figure 2) In early adolescence, data were collected twice annually in individual interview and twice annually in group assessments in grades 6, 7, and 8. Follow-up data were obtained in grade 12 and again four years later. Data were collected from parents when their children were in grades 6, 8, and 12.

The affective family environment was assessed with the Lowman Inventory of Family Feelings (LIFF; Lowman, 1974) and a measure of closeness based on questions asked by Blyth and colleagues (1982). The LIFF asked each family member to respond to questions about positive and negative feelings about each other family member in grades 6 and 8. The closeness questions were asked of the adolescent in grades 8, 12, and young adulthood about mother, father, and best friend. Additional family questionnaires (e.g., the Moos Family Environment Scale, Olson's FACES) were given in 12th grade.

Mental health outcomes were assessed at all grades with the Self-Image Questionnaire for Young Adolescents (SIQYA; Petersen, et al, 1984), especially the Emotional Tone scale; at 8th and 12th grades and young adulthood with the clinical-epidemiological questions about depressive episodes from the TOYS (Gittelman et al, 1985); and at 12th grade and the young adult follow-up with the Kandel Depression Scale (Kandel & Davies, 1982).

Results

Developmental Change in Mental Health

Emotional tone improved for boys but remained relatively flat for girls over the adolescent decade. (Figure 3) Reports of depressive episodes increased dramatically by 12th grade, with

a greater increase for girls than boys, producing a large gender difference; levels declined some by young adulthood with a diminishing gender difference. (Figure 4) A similar pattern is seen when the number of episodes of depressed affect are plotted. (Figure 5) The Kandel Depression Scale also showed a significant gender difference that remains constant from 12th grade into young adulthood. (Figure 6)

Developmental Change in the Affective Family Environment

Closeness to parents, as reported by adolescent girls, declined by middle adolescence but rose again by young adulthood; the patterns for boys were basically flat, and much higher with fathers than mothers. (Slides) More general family relationships also declined by 12th grade but then rose again in young adulthood. (Figure 7) As might be expected, closeness to best friend remained at high levels for girls and steadily increased for boys over the adolescent decade. (Figure 8) Because the Lowman measure was used only in early adolescence, we cannot examine long-term trends; this exemplifies a dilemma of longitudinal research.

Early Adolescence

At both 6th and 8th grades, mental health was strongly related to closeness with fathers and with mothers, whether

closeness was reported by the adolescent or parent. (Figure 9) Reciprocally reported family feelings among the three dyads in the mother-father-adolescent triad declined from the sixth to eighth grades, especially for triads including girls. (Figure 10) Interestingly, adolescents reported more positive feelings toward their fathers at sixth grade than their fathers reported toward the adolescents. Earlier pubertal timing was related to more negative family feelings at 8th grade, especially for girls. (Figure 11)

Negative family events in early adolescence, as reported by the parents, were related to more depression in girls but there was no relationship for boys. (Figure 12) Note that girls were more likely to experience parental divorce in early adolescence than were boys. (Figure 13)

Thus, it appears that closeness with fathers in early adolescence may play a protective role for mental health, especially with girls. At the same time, girls appear to report and elicit reports of more negative family affect than boys, increasingly over early adolescence. The fact that early maturation for girls is negative in many respects, including family feelings, may be the major factor influencing this gender difference. In addition, girls experienced more negative family events in early adolescence, especially divorce, and such events were linked to more negative outcomes for them.

Middle Adolescence

Negative family events in early adolescence, together with pubertal timing and the synchronicity of school change and pubertal timing explained the emergence of gender differences in depressed affect in 12th grade, on each of the three measures (Petersen et al, in press). Family closeness in early adolescence, but not closeness with best friend, protected against the negative effects of these changes.

Four family typologies at 12th grade, roughly ordered by expectations of positive to negative effects, were linearly related to mental health outcomes for girls but not boys (Mikesell, 1989). (Figure 14) For boys, the patterns were roughly the same except that boys in the family type hypothesized to be the least functional (more distant, conflictual, controlling) reported surprisingly high mental health. This unusual group appears repeatedly in our analyses (Figure 15), leading us to suspect that they may be basing their reports more on wishful thinking than reality. Negative family events during the high school years (as reported by parents) again were related to more depression for girls but not boys (Kennedy & Petersen, 1989). The group of boys just noted may be biasing these results.

Thus, in general we continue to find strong relationships between the family environment and mental health, especially for girls. A group of boys who either were unusually strong despite negative circumstances--perhaps a steeling effect--or who exhibited a defensive response involving denial appeared to be diminishing similar effects for boys.

Young Adulthood

Many analyses revealed a lack of relationship between emotional tone in early adolescence and later ages for girls but moderate relationships for boys. By 12th grade there appears to be stability in this variable for both genders. (Figure 16) Covariance structure models of the direction of effects over time between closeness with parents and emotional tone, revealed only two significant effects for girls (of 12 possible): A negative path between 12th grade emotional tone and mother closeness in young adulthood (Figure 17) and a negative path between 12th grade closeness with father and emotional tone in young adulthood. (Figure 18) For boys, there were four significant effects: both mother and father closeness in 8th grade predicted better emotional tone in 12th grade (Figure 19); similarly, better emotional tone in 12th grade predicted more closeness with mother in young adulthood (Figure 20). Conversely, better emotional tone in 8th grade predicted poorer closeness with mother in 12th grade (Figure 21). Because of the lower power of

these analyses it is possible that a few subjects could have had disproportionate effect on the results. In addition, the variations in stability of these variables, especially emotional tone, over time and between genders requires caution in interpretation.

In a recently completed doctoral dissertation by Pamela Sarigiani (1990), parental divorce in adolescence had the strongest effects on those adolescents, especially girls, who had some difficulties in mental health prior to the divorce. Further, more concern about getting married was reported by adolescents whose parents divorced when they were adolescents compared to those not experiencing divorce. (Figure 22) Those who were especially resilient to negative effects of parental divorce were more likely to have close relationships with peers (Sarigiani, 1990).

Thus, parental relationships continue to have some effect in young adulthood, though less than at earlier ages--a not surprising result considering that most of these youth went away to college. Note, however, that the frequency of contact with parents is quite extensive. (Figure 23) Perhaps more controllable contact helps the relationships. Parental divorce was not uniformly negative--in contrast to beliefs and well-publicized findings of a study with a clinical population. Those experiencing difficulties following divorce were usually having

difficulties prior to the divorce. Good peer relationships in middle and later adolescence appeared to buffer negative effects.

Summary

The affective family environment, at least as assessed in our study, appears to change over the adolescent decade. There is decline in early adolescence, especially as reported by parents and especially for girls. Based on reports by adolescents, this decline appears to continue to 12th grade but improves by young adulthood.

Variations in the affective family environment appear to influence the mental health of the adolescent, especially for girls. The effects for boys suggest that there is a subgroup who report good mental health despite adverse family circumstances or negative family events. We are currently testing the alternative hypothesis that this is a steeling effect versus use of denial as a defense. The role of early pubertal timing, especially for girls, is important to pursue further. Other research has identified the importance of early pubertal timing in setting girls on a negative development trajectory (e.g., Caspi & Moffit, in press; Stattin & Magnusson, 1990).

We are also interested in continuing to compare the reports of parents with those of adolescents about the affective family

environment. The fact that there were some differences in early adolescence suggests that another factor in the family environment might be differing perceptions on the part of family members. Dan Offer (1979) found previously that the major factor differentiating delinquents from normal youth was the extent of disagreement among parents and between parents and adolescents.

The evidence that closeness with parents, especially father, can buffer the negative effects of changes in the early adolescent transition on 12th grade depression suggests that parents can play a protective role relative to adolescent mental health in addition to the negative influence more commonly discussed. Further examination of this protective role would have important implications for preventive interventions as well as parenting advice.

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Figure 1

ADOLESCENT MENTAL HEALTH STUDY

*COHORT SEQUENTIAL LONGITUDINAL DESIGN

*RANDOM SAMPLE OF STUDENTS FROM 2 SUCCESSIVE 6th GRADE COHORTS FROM 2 MIDWESTERN U.S. MIDDLE- TO UPPER-MIDDLE CLASS SUBURBAN SCHOOL DISTRICTS

*ADOLESCENTS INTERVIEWED AND TESTED TWICE ANNUALLY FROM GRADES 6 THROUGH 8 (AGES 11-14); INTERVIEW AND TEST FOLLOW-UP IN 12th GRADE (AGE 18) AND AGE 22

*PARENTS INTERVIEWED AND TESTED WHEN ADOLESCENTS IN GRADES 6, 8, AND 12

*TOTAL SAMPLE N=335

Figure 2

Cohort-Sequential Longitudinal Design

	GRADE				
Cohort (Birth Year)	6	7	8	12	12+4
I (1967)	78-79	79-80	80-81	84-85	88-89
II (1968)	79-80	80-81	81-82	85-86	89-90

NOTE: Table entries indicate year for testing.

Figure 3

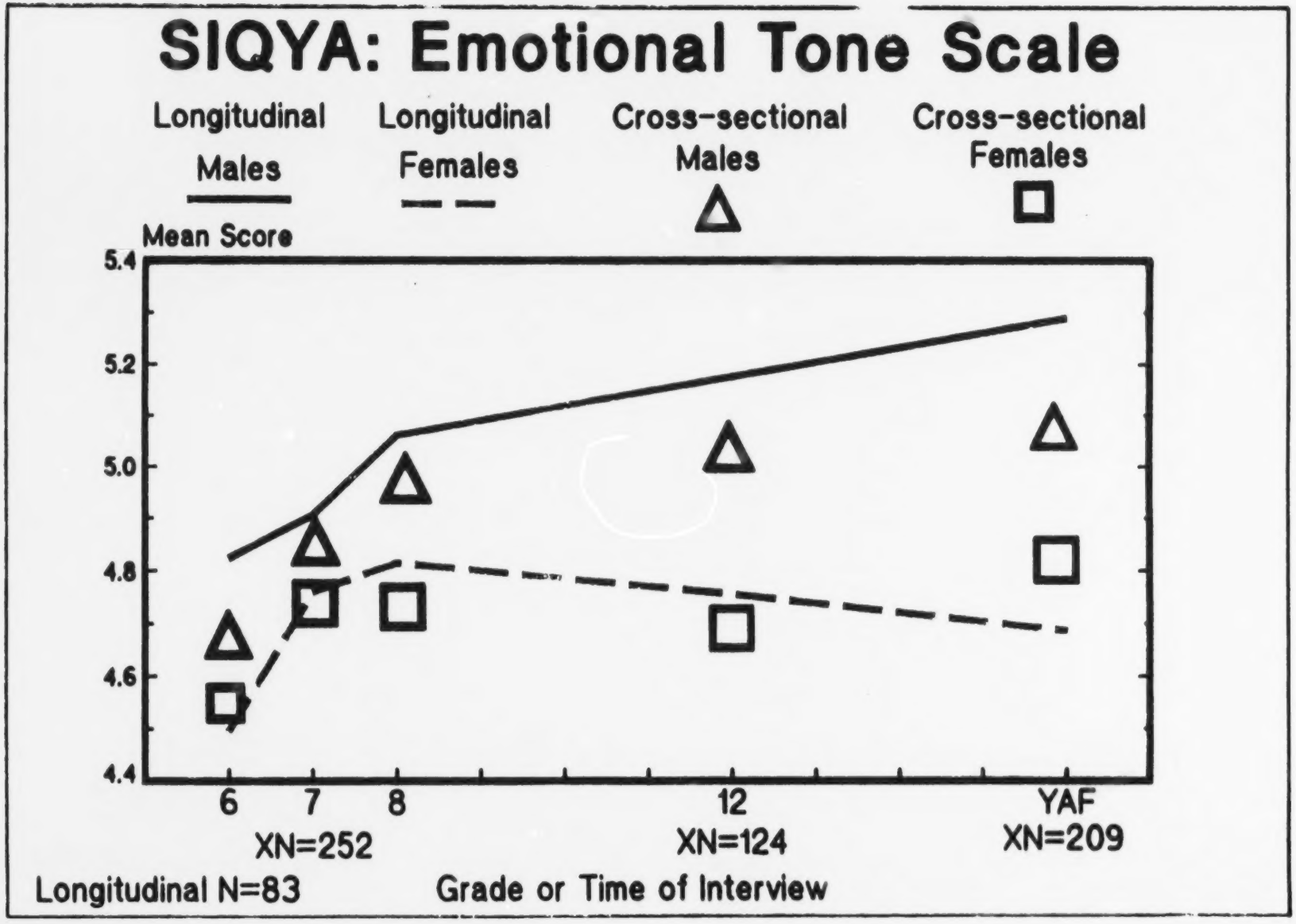

SIQYA: Emotional Tone Scale
Longitudinal Males
Longitudinal Females
Cross-sectional Males
Cross-sectional Females
Mean Score
5.4
5.2
5.0
4.8
4.6
4.4
6
7
8
12
YAF
XN=252
XN=124
XN=209
Longitudinal N=83
Grade or Time of Interview

Figure 4

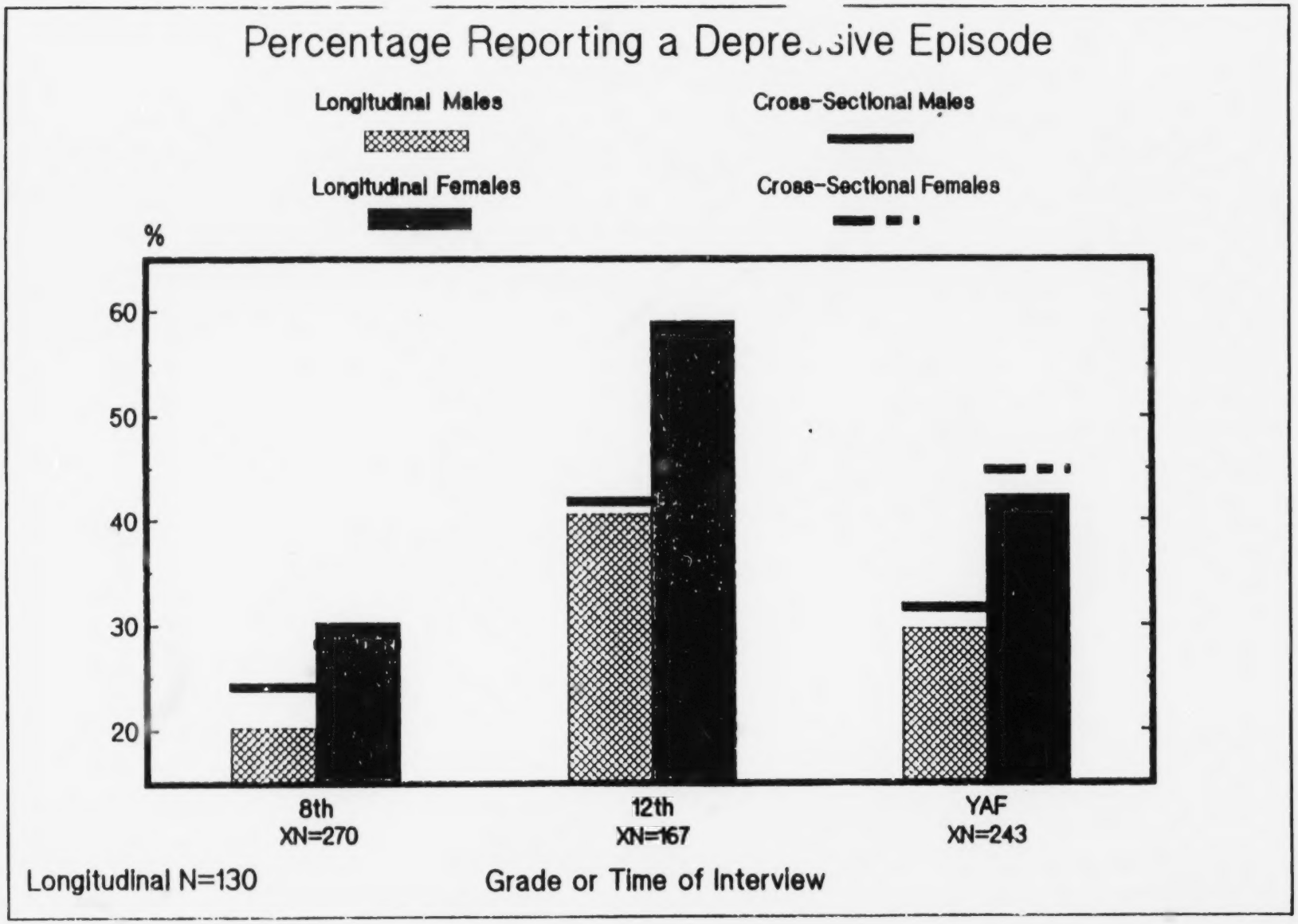

Percentage Reporting a Depressive Episode
Longitudinal Males
Cross-Sectional Males
Longitudinal Females
Cross-Sectional Females
%
60
50
40
30
20
8th
XN=270
12th
XN=167
YAF
XN=243
Longitudinal N=130
Grade or Time of Interview

Figure 5

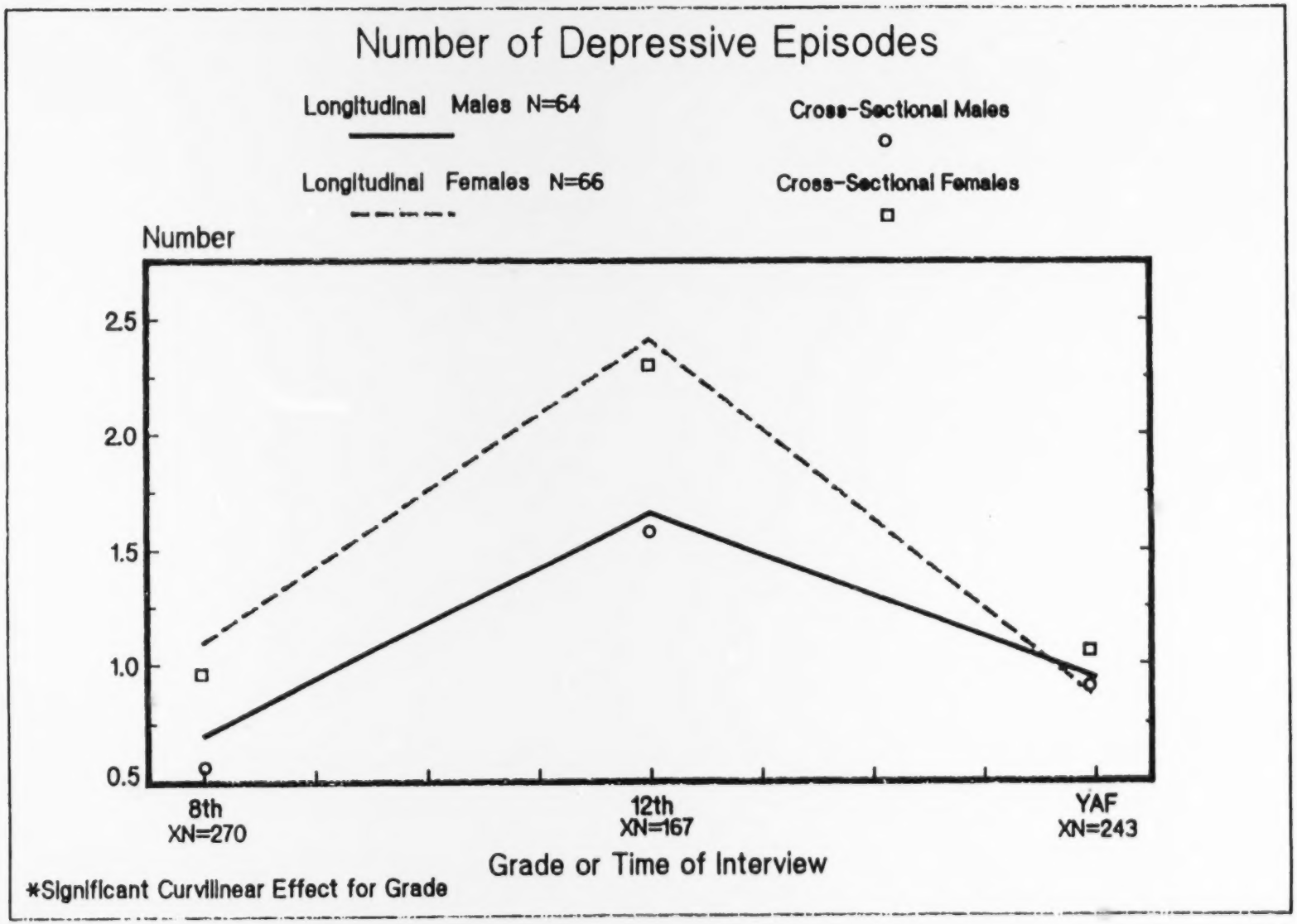

Number of Depressive Episodes
Longitudinal Males N=64
Cross-Sectional Males
Longitudinal Females N=66
Cross-Sectional Females
Number
2.5
2.0
1.5
1.0
0.5
8th
XN=270
12th
XN=167
YAF
XN=243
Grade or Time of Interview
*Significant Curvilinear Effect for Grade

Figure 6

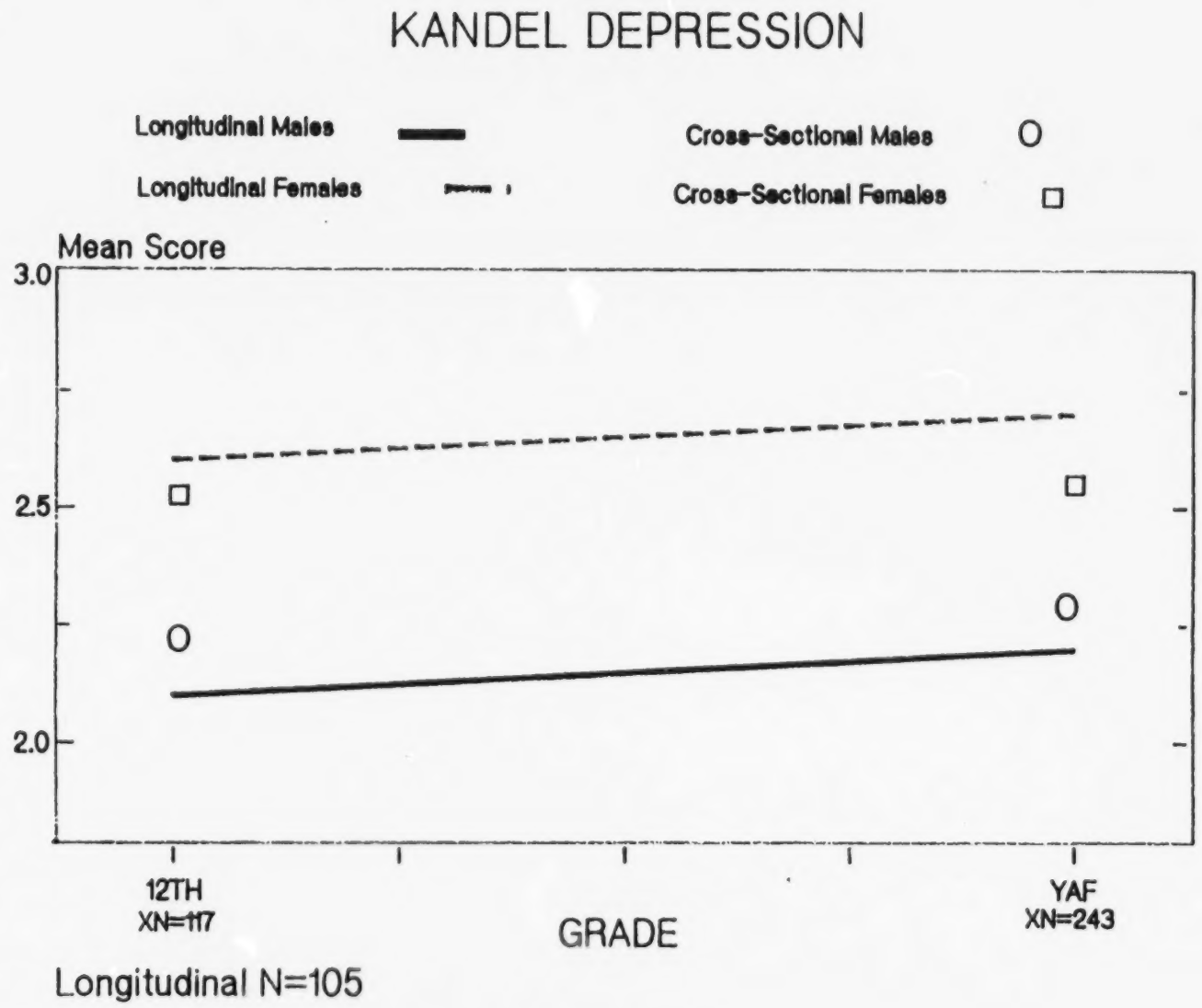

KANDEL DEPRESSION
Longitudinal Males
Cross-Sectional Males
Longitudinal Females
Cross-Sectional Females
Mean Score
3.0
2.5
2.0
12TH
XN=117
GRADE
YAF
XN=243
Longitudinal N=105

Figure 7

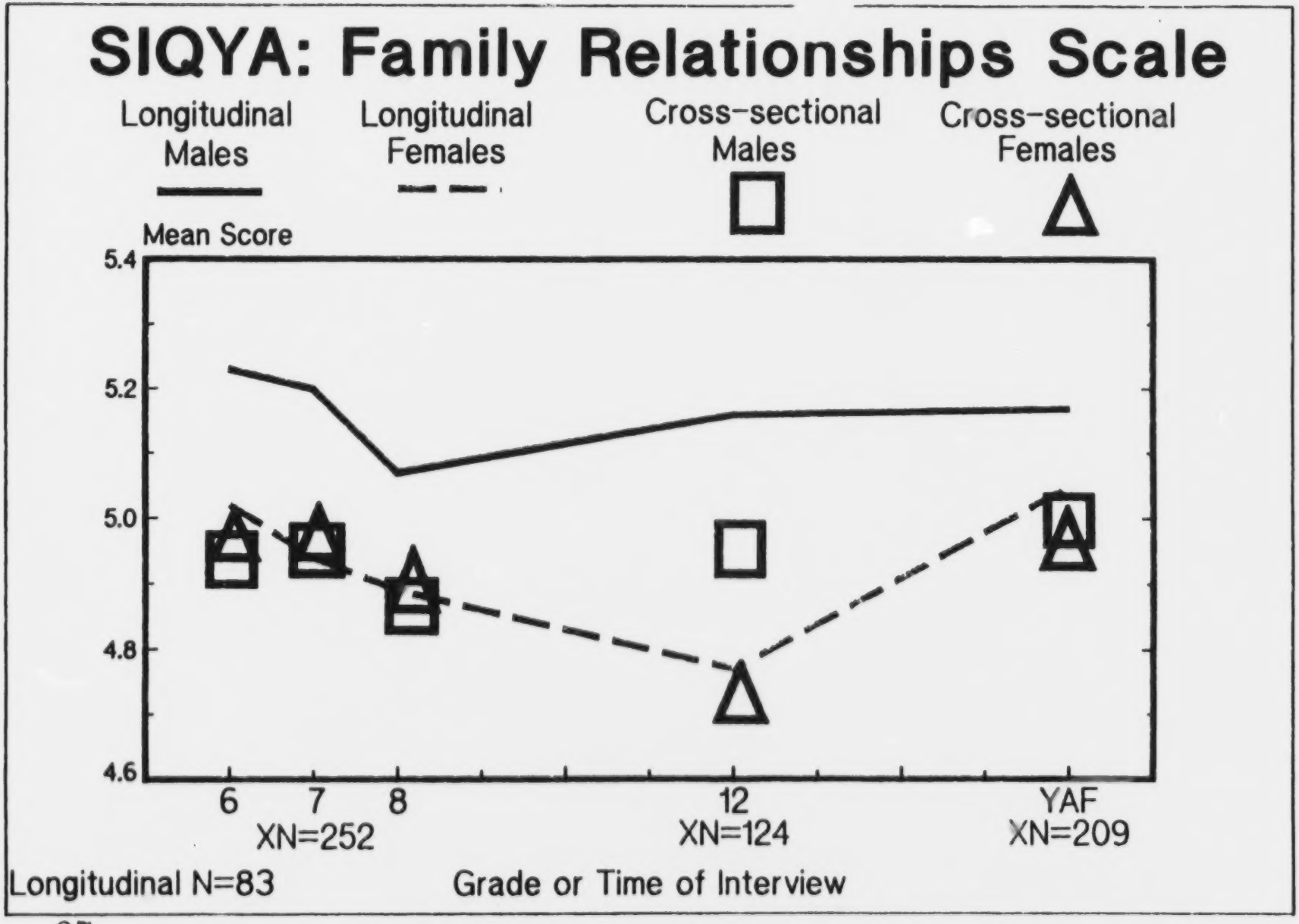

SIQYA: Family Relationships Scale
Longitudinal Males
Longitudinal Females
Cross-sectional Males
Cross-sectional Females
Mean Score
5.4
5.2
5.0
4.8
4.6
6
7
8
12
YAF
XN=252
XN=124
XN=209
Longitudinal N=83
Grade or Time of Interview

Figure 8

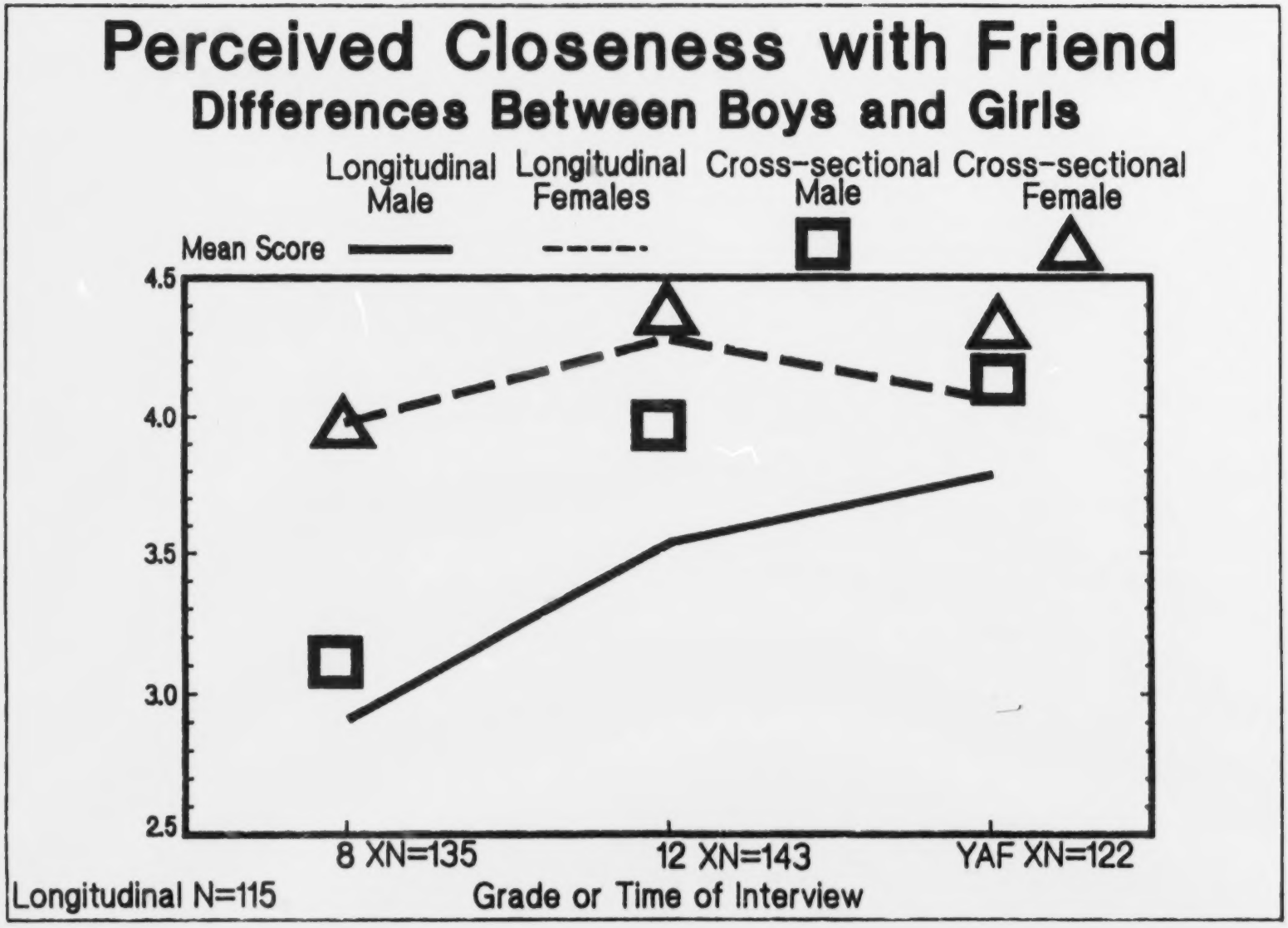

Perceived Closeness with Friend
Differences Between Boys and Girls
Longitudinal Male
Longitudinal Females
Cross-sectional Male
Cross-sectional Female
Mean Score
4.5
4.0
3.5
3.0
2.5
8 XN=135
12 XN=143
YAF XN=122
Longitudinal N=115
Grade or Time of Interview

Figure 9

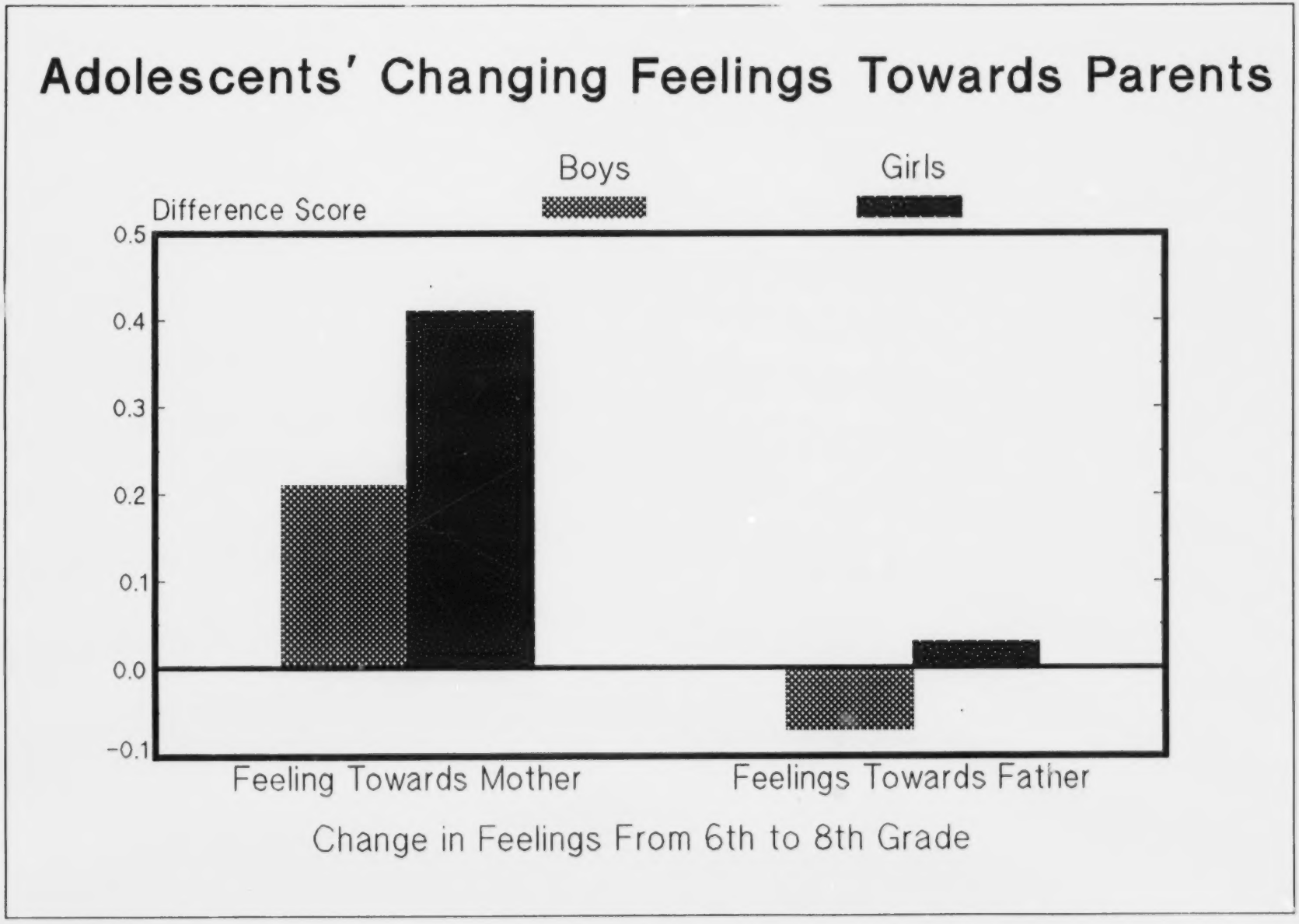
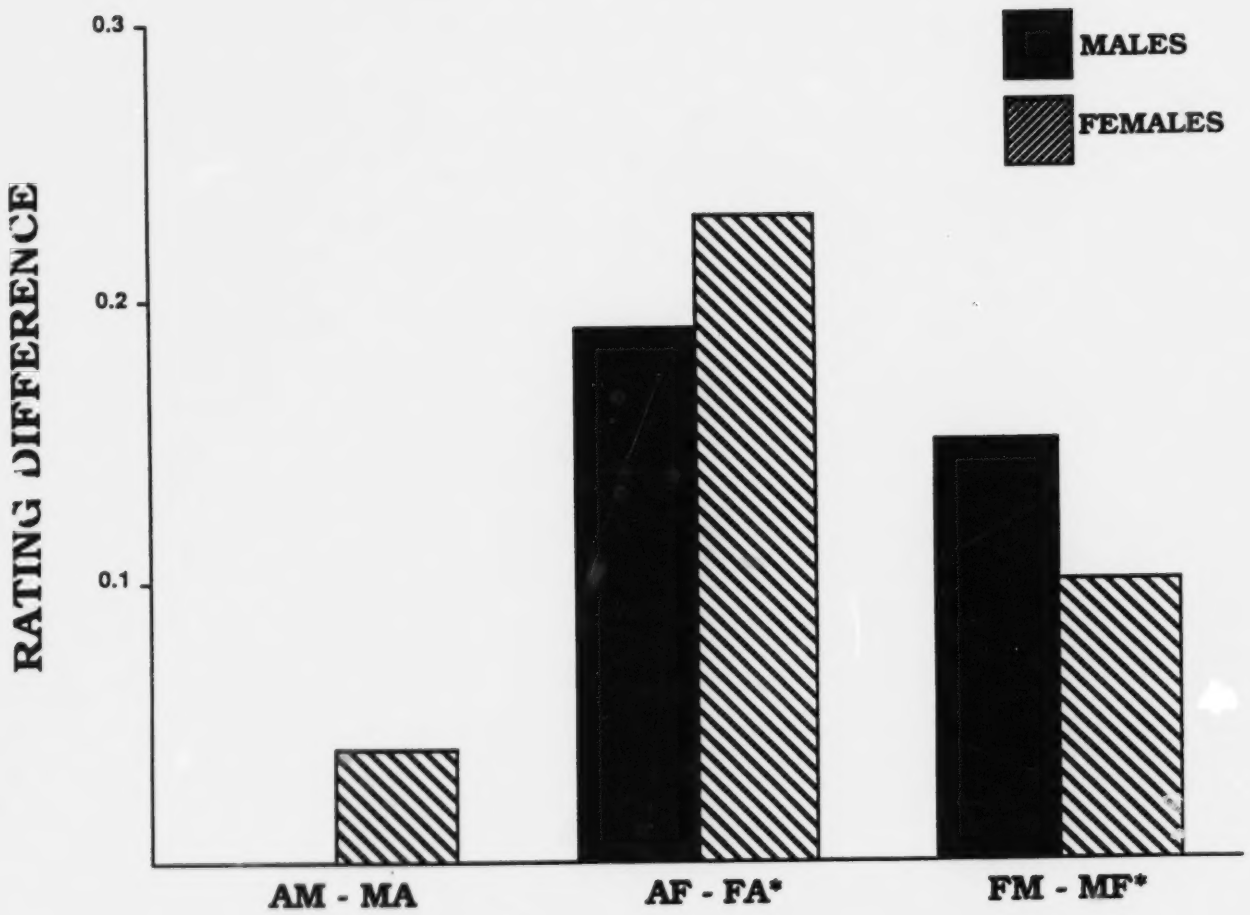

Adolescents' Changing Feelings Towards Parents
Boys
Girls
Difference Score
0.5
0.4
0.3
0.2
0.1
0.0
-0.1
Feeling Towards Mother
Feelings Towards Father
Change in Feelings From 6th to 8th Grade

Figure 10



DIFFERENCES IN FAMILY FEELINGS IN SIXTH GRADE

*INDICATES SIGNIFICANT DIFFERENCES FOR p<.05.

Figure 1

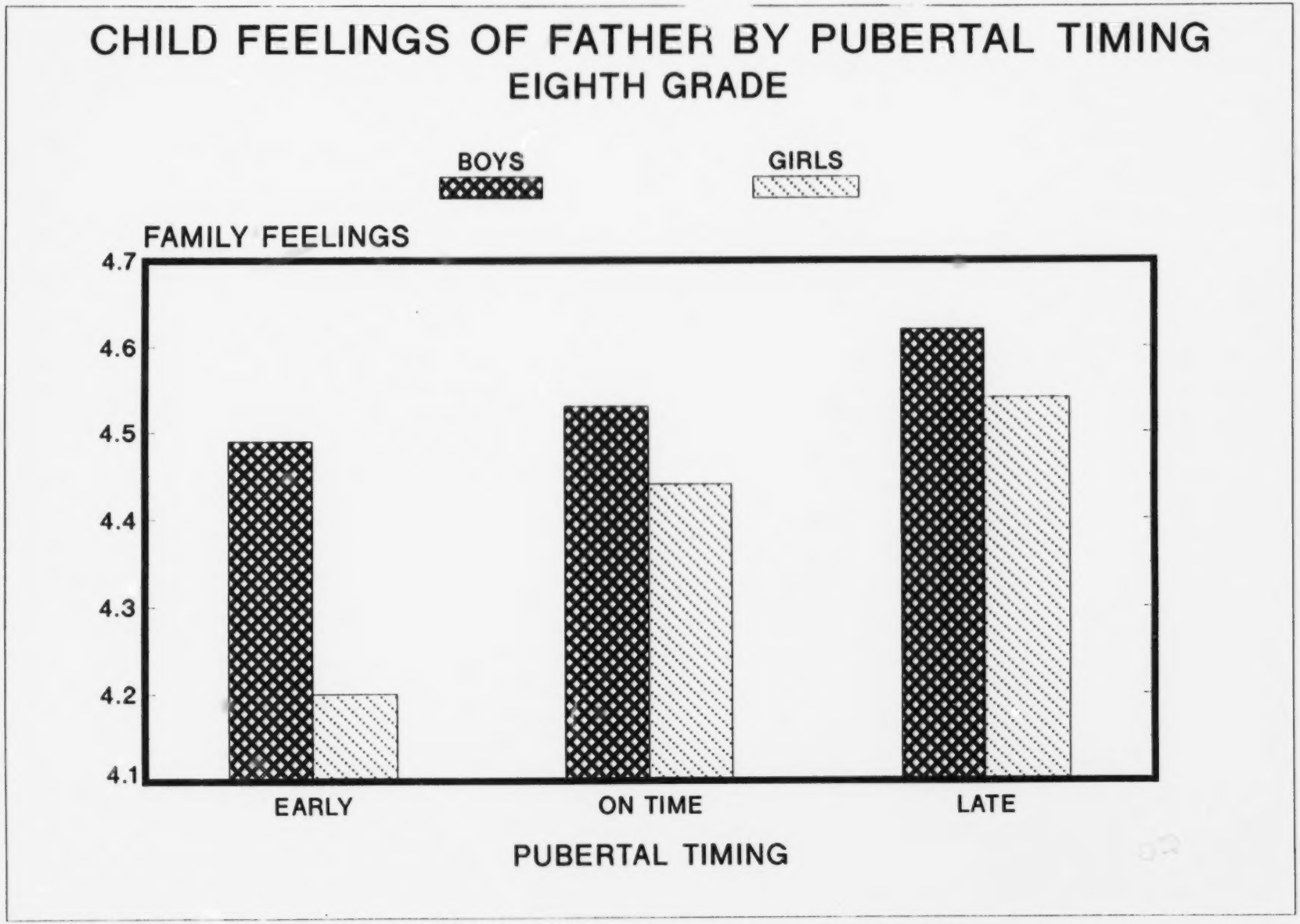

CHILD FEELINGS OF FATHER BY PUBERTAL TIMING
EIGHTH GRADE
BOYS
GIRLS
FAMILY FEELINGS
4.7
4.6
4.5
4.4
4.3
4.2
4.1
EARLY
ON TIME
LATE
PUBERTAL TIMING

Figure 12

Table 3

Sex by Family Event Eighth-Grade Means and Standard Deviations for Number of Depressive Episodes

	No family events		One or more events	
	Girls (N=69)	Boys (N=55)	Girls (N=61)	Boys (N=53)
M	0.52_a	$0.96_{a,b}$	1.37_b	0.45_a
S.D	(1.56)	(2.03)	(2.33)	(1.05)

Note. Means with the same subscript are not significantly different at $p<.01$.

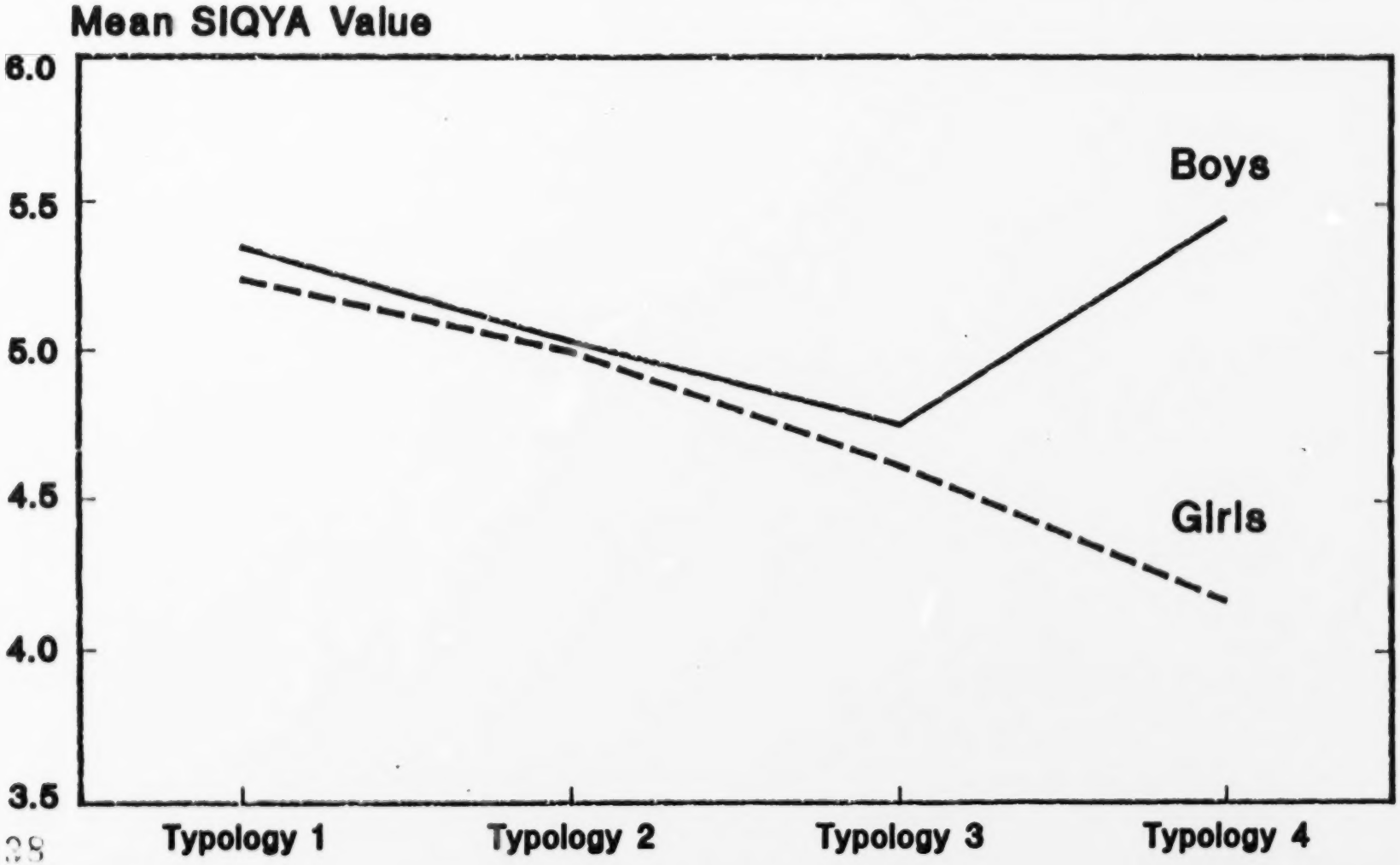
Figure 13

TIMING OF PARENTAL DIVORCE

Developmental Period at Time of Divorce	Males	Females
Childhood (through grade 5)	9	10
Adolescence (grades 6 - 12)	4	12
Young Adulthood (beyond grade 12 - present)	0	1

Figure 14

Effects of Typology: Emotional Tone



(R-sq=.19)

Figure 15

Table 3

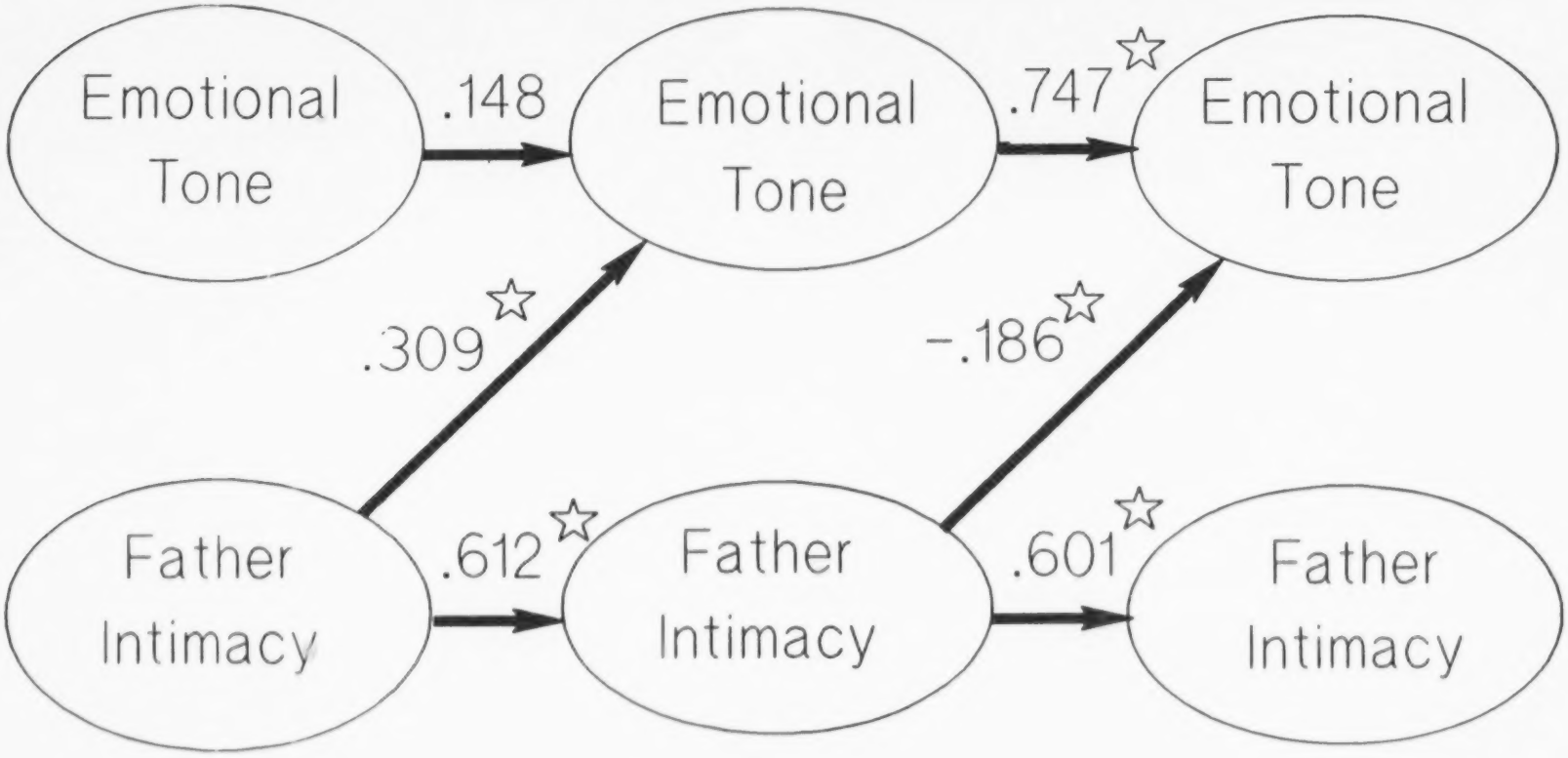
Sex by Family Event Eighth-Grade Means and Standard Deviations for Number of Depressive Episodes

	No family events		One or more events	
	Girls (N=69)	Boys (N=55)	Girls (N=61)	Boys (N=53)
M	0.52_a	$0.96_{a,b}$	1.37_b	0.45_a
S.D	(1.56)	(2.03)	(2.33)	(1.05)

Note. Means with the same subscript are not significantly different at $p<.01$.

Figure 16

The Relationship of Mood and Closeness with Father Across Time for Boys and Girls (N=62)

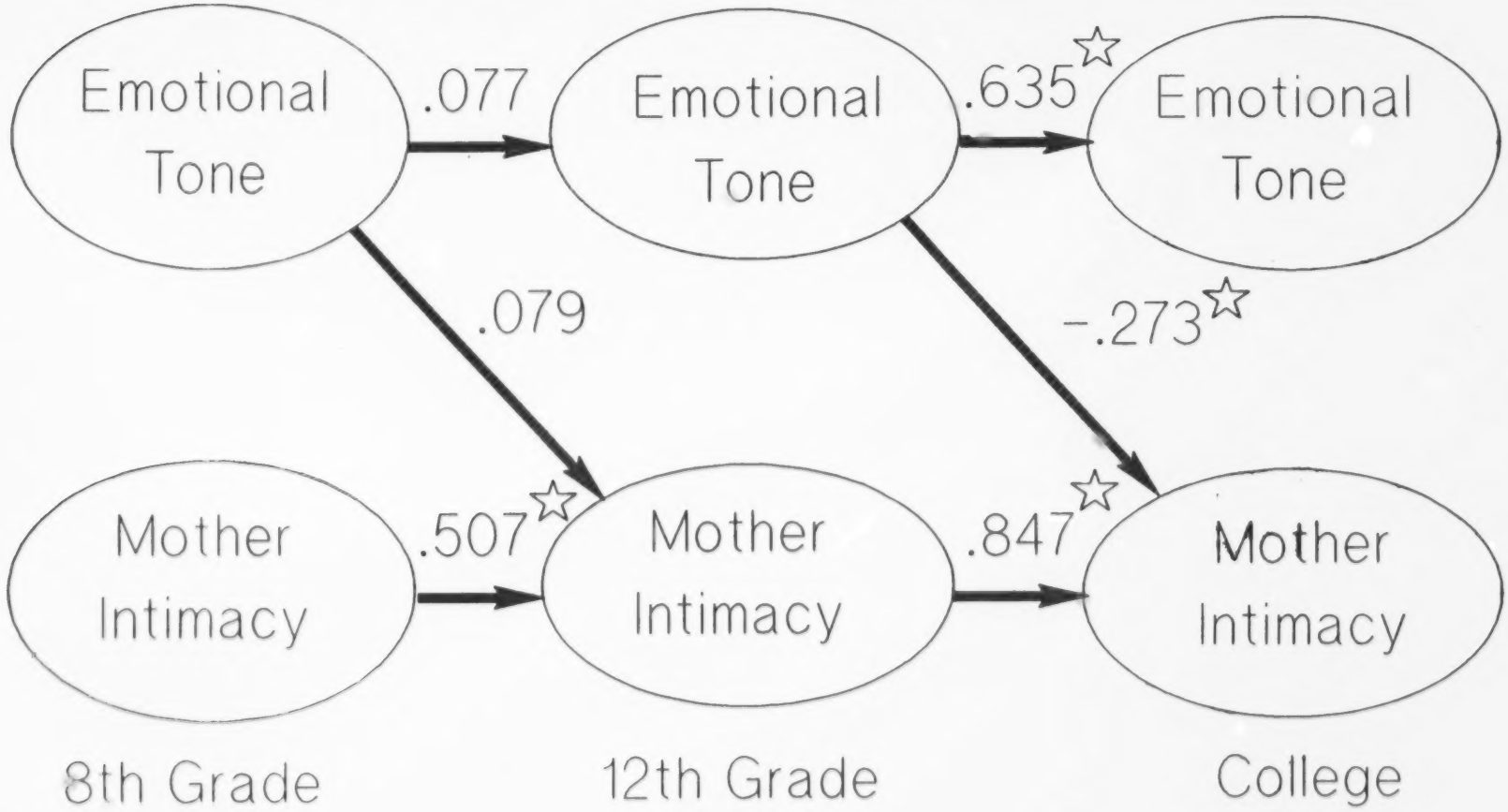


☆: $p<.05$

$X^2 = 22.21$ df=11 p=.02

Figure 17

The Relationship of Mood and Closeness with Mother Across Time for Girls (N=33)

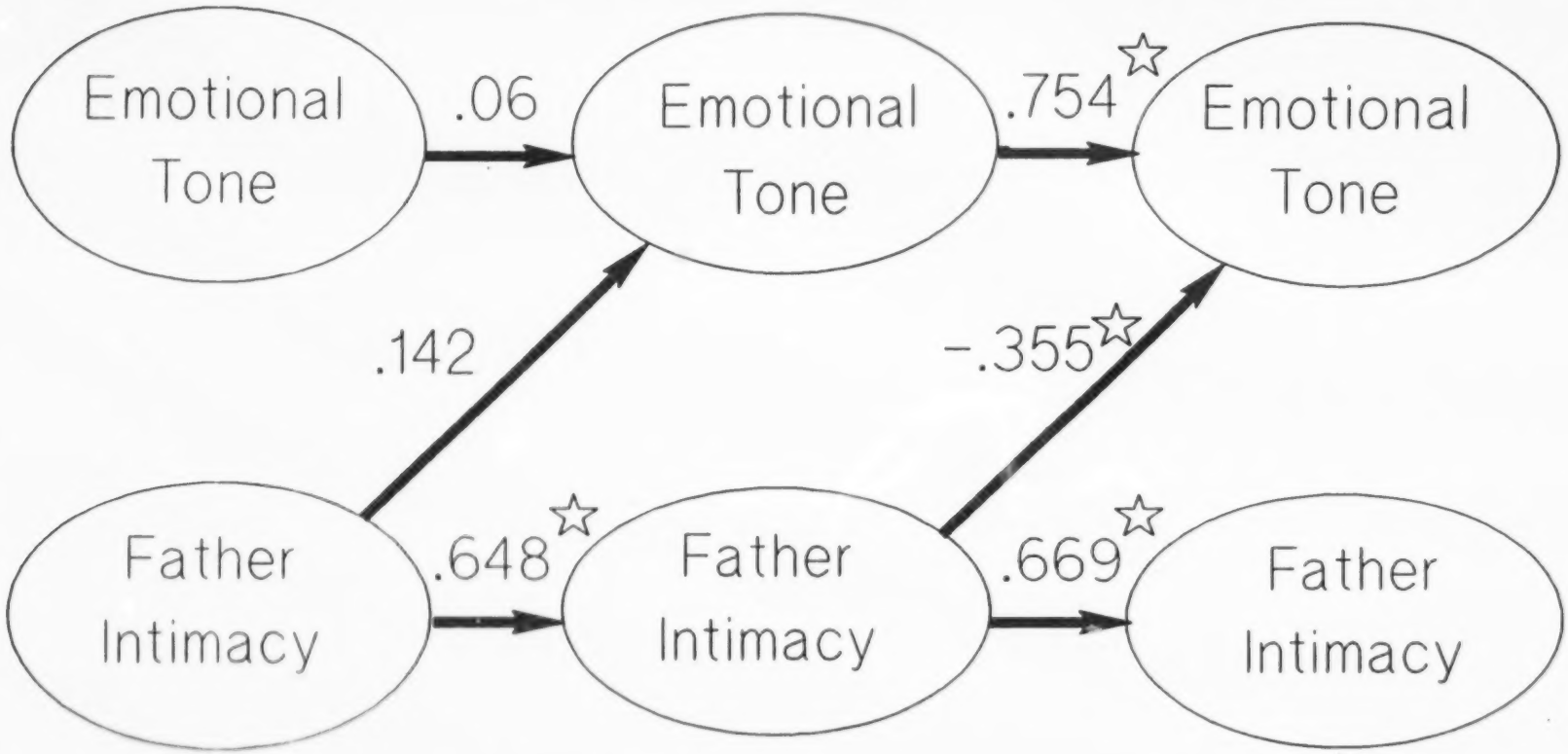


☆: $p<.05$

$X^2 = 6.74$ df=11 p=.822

Figure 18

The Relationship of Mood and Closeness with Father Across Time for Girls (N=34)

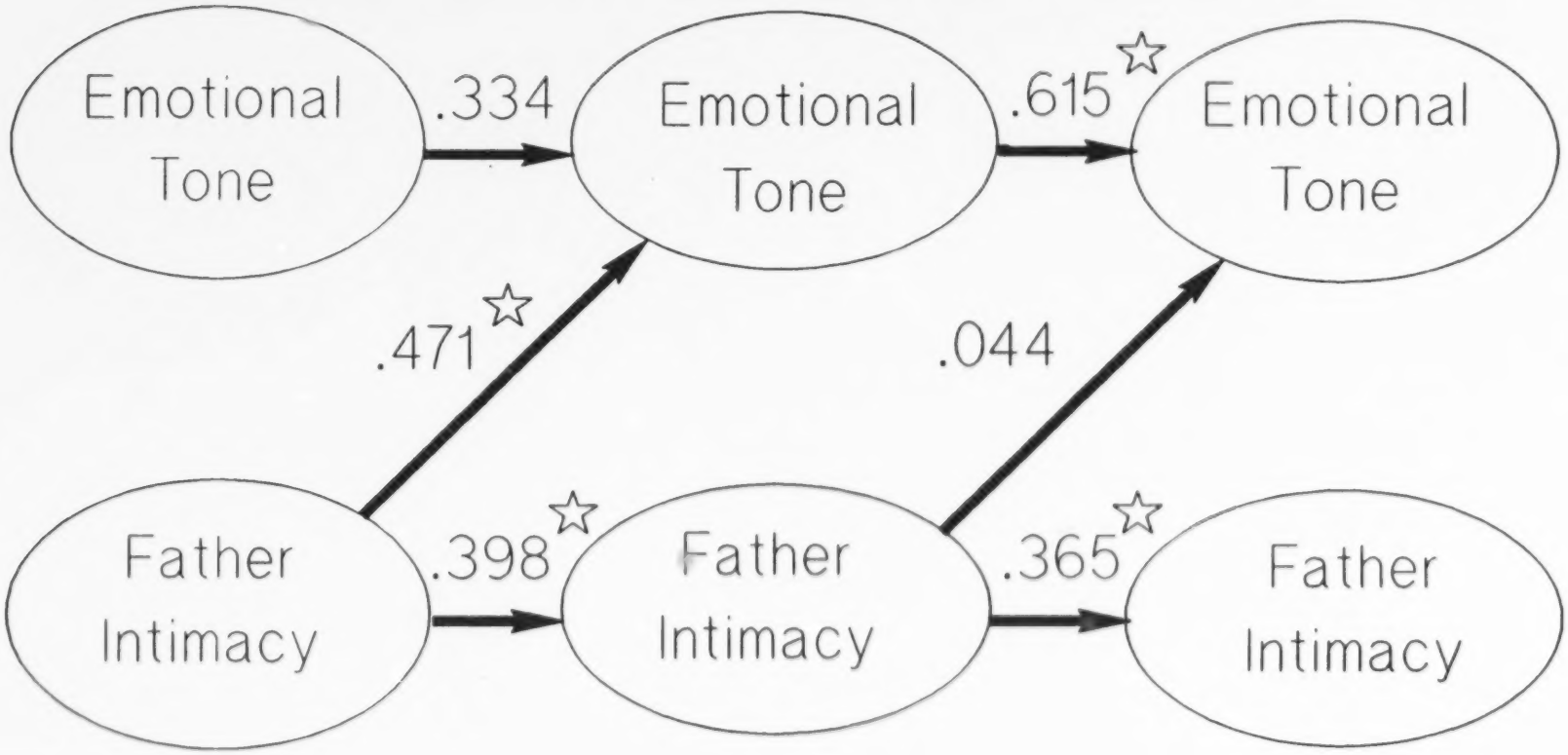


☆: $p<.05$

$X^2 = 13.16$ df=11 p=.28

Figure 19

The Relationship of Mood and Closeness with Father Across Time for Boys (N=28)

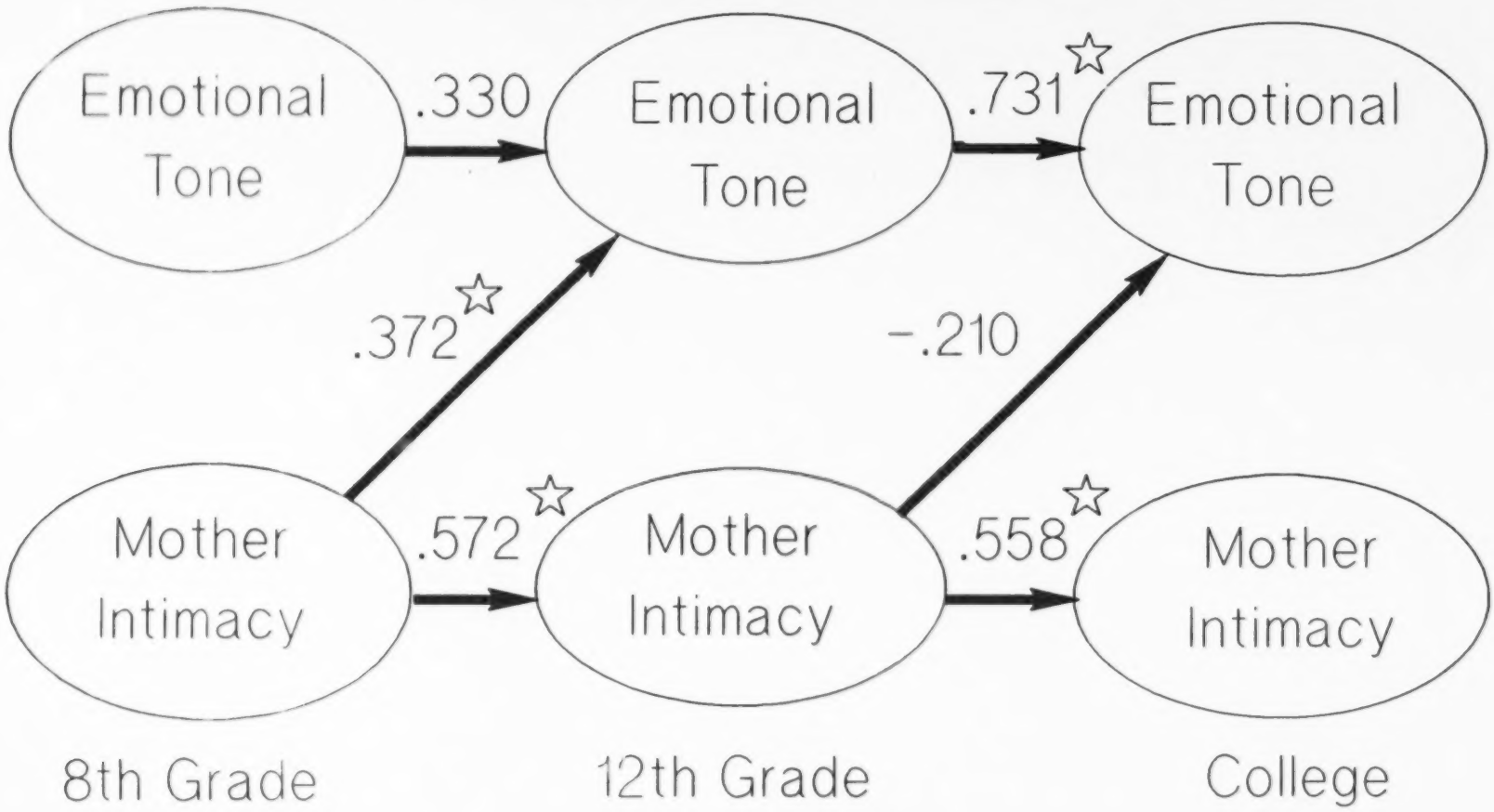


☆: $p<.05$

$X^2 = 15.34$ df=11 p=.17

Figure 20

The Relationship of Mood and Closeness with Mother Across Time for Boys (N=30)

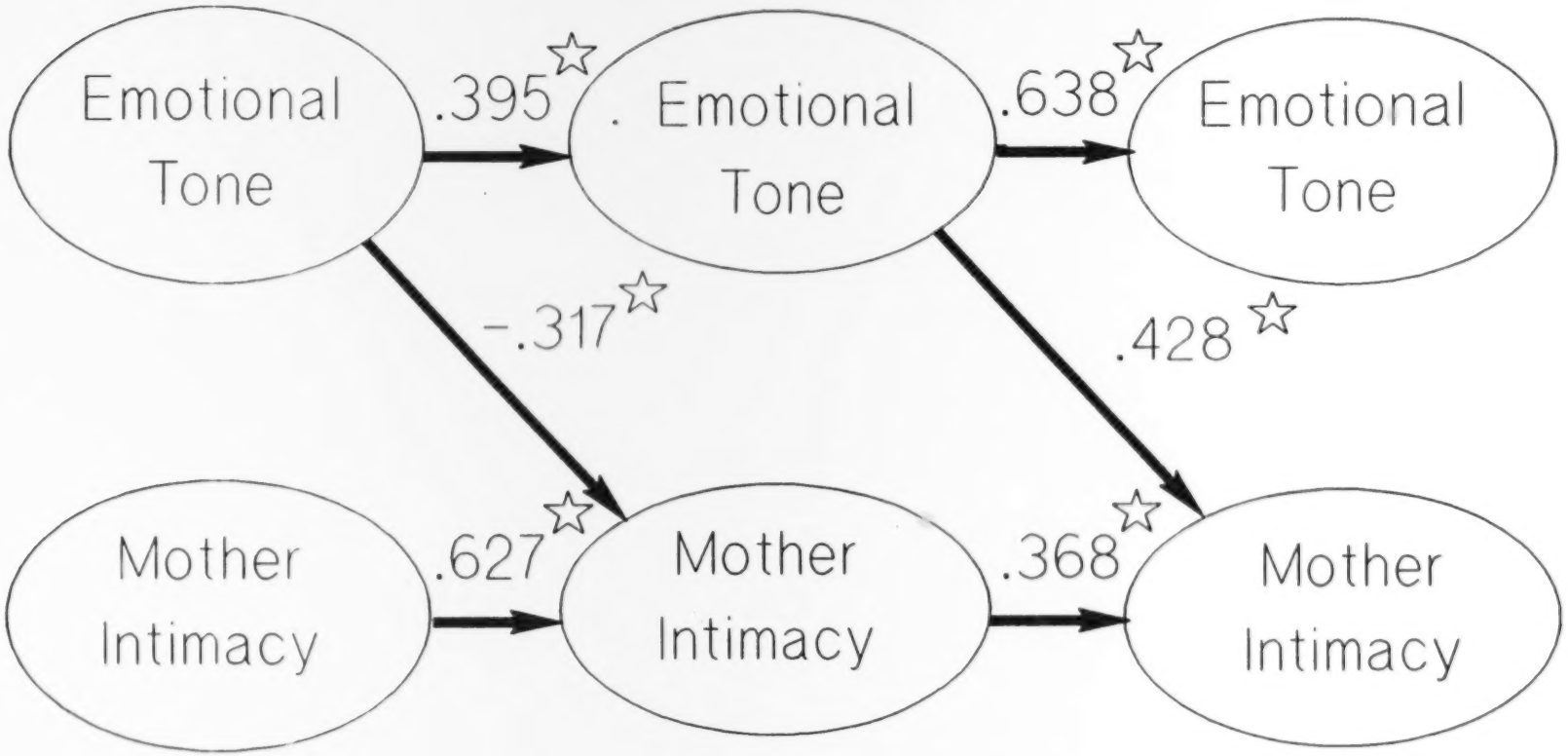


☆: $p<.05$

$X^2=25.46$ df=11 p=.008

Figure 21

The Relationship of Mood and Closeness with Mother Across Time for Boys (N=30)



☆: $p<.05$

$X^2 = 19.95$ $df=11$ $p=.05$

Figure 22

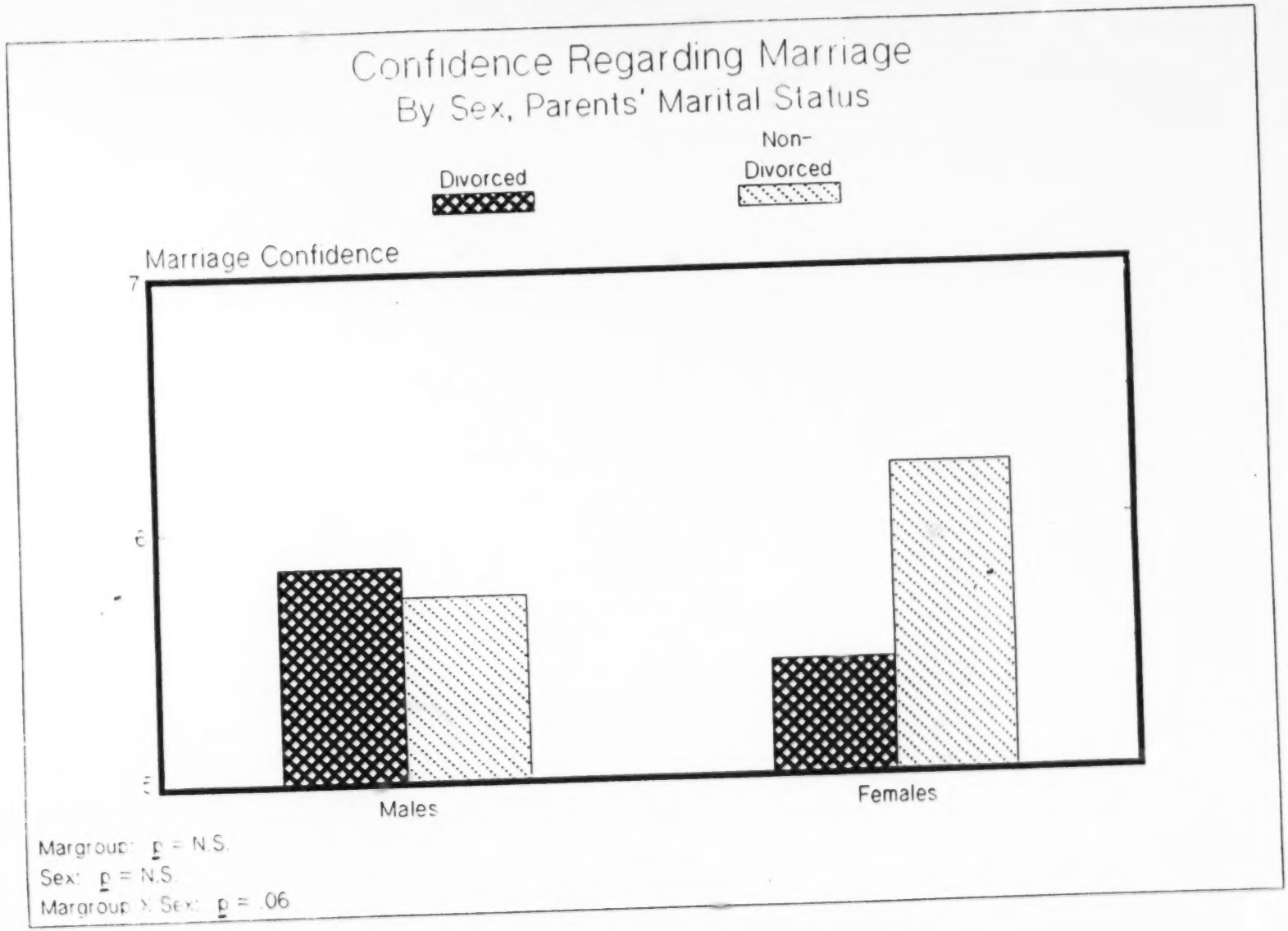
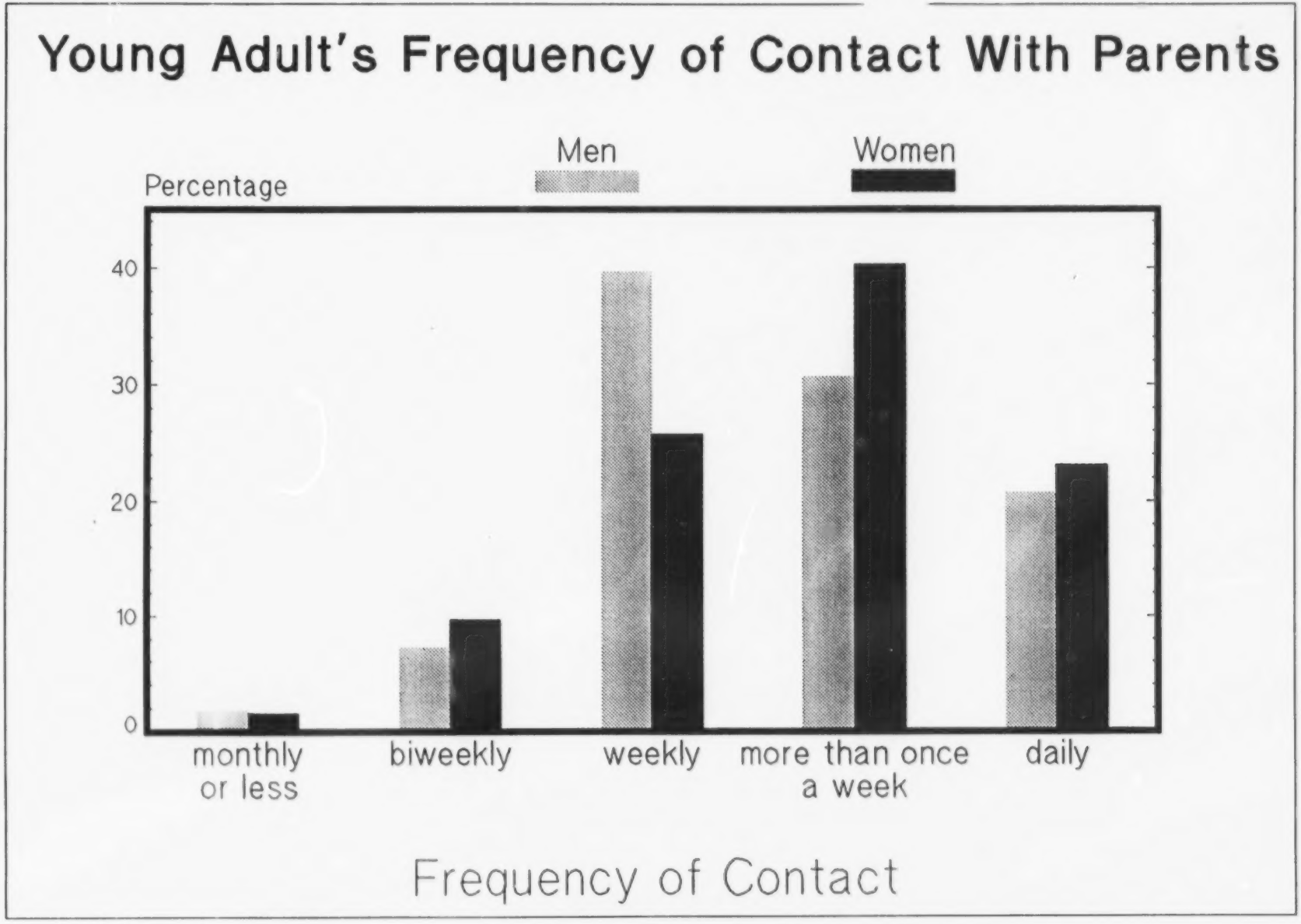

Confidence Regarding Marriage
By Sex, Parents' Marital Status
Divorced
Non-
Divorced
Marriage Confidence
7
6
Males
Females
Margroup: p = N.S.
Sex: p = N.S.
Margroup X Sex: p = .06

Figure 23


Young Adult's Frequency of Contact With Parents
Men
Women
Percentage
40
30
20
10
0
monthly or less
biweekly
weekly
more than once a week
daily
Frequency of Contact